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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,796	12/29/2000	Brian B. Egan	NTL-3.2.168/3635	5319

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EXAMINER
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VINCENT, DAVID ROBERT

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/751,796

**Applicant(s)**

EGAN ET AL.

**Examiner**

David R Vincent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-24 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mottishaw (US 6,721,284).

The applicant specifies the phrase "call trace". It is noted that it is well known that tracing a call (path/route that call takes places on) can be achieved using the Internet Control Message Protocol (ICMP) or UDP packets.

Packets sent by **ping** are actually ICMP echo request packets. **Traceroute** packets can, in theory, be any kind of routable packets (they are generally UDP packets or even ICMP packets) in which the time-to-live (**TTL**) field is being increased packet by packet, because in traceroute the useful

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information is given by routers as they discard packets that have not enough TTL to pass through them.

Ping and traceroute are two very useful functions for managing networks. Ping is typically used to determine if a path exists between two hosts while traceroute shows an actual path. Ping is usually implemented using the ICMP "ECHO" facility. Traceroute is usually implemented by transmitting a series of **probe packets** with increasing TTL values. A probe packet is a UDP datagram encapsulated into an **IP packet**. Each hop in a path to the target (destination) host rejects the probe packet (probe's TTL too small) until its TTL value becomes large enough for the probe to be forwarded. Each hop in a traceroute path returns an ICMP message that is used to discover the hop and to calculate a round trip time. Some systems use **ICMP probes** (ICMP Echo request packets) instead of UDP ones to implement traceroute. In both cases traceroute relies on the probes being rejected via an ICMP message to discover the hops taken along a path to the final destination. Both probe types, UDP and ICMP, are encapsulated into an IP packet and thus have a TTL field that can be used to cause a path rejection. Implementations of the remote traceroute capability as defined within **RFC2925** should be done using UDP packets to a (hopefully) unused port. ICMP probes (ICMP Echo Request packets) should not

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be used. Many PC implementations of traceroute use the ICMP probe method, which they should not, since this implementation method has been known to have a high probability of failure. Intermediate hops become invisible when a router either refuses to send an ICMP TTL expired message in response to an incoming ICMP packet or simply tosses ICMP echo requests altogether.

Mottishaw discloses a device (DMI, Figs. 1-2, col. 3, lines 48-67) that communicates over a packet network (Packet Data Network/PDN, cols. 1-2 or Fig. 1; IP, Fig. 2) with an end point device (col. 4, lines 43-57), to request a call trace (explained above as reading on probing; tracing of calls, col. 3, lines 34-47; probing, Figs. 1-2), to receive call trace data and to acknowledge (using TCP/IP ACKs are sent, col. 1, lines 18-30; col. 13, lines 59-62), call trace data is selected from a group consisting one of IP address (network address, col. 4, lines 58-67; col. 5, lines 40-44), location data (col. 5, lines 3-15), type/class (col. 6, lines 24-30; col. 7, lines 23-35), a call route (explained above as part of using probes; col. 11, lines 39-50), topology of route (using HOPV, col. 11, lines 39-50), DNS of IP (using IP and E.164 addresses implies also using DNS in this environment, Fig. 1-2, col. 5, lines 3-15), whether or not device is mobile (GSM device using a gateway, Fig. 2), redirection (e.g., mis-configuration, col. 10, lines 1-14),

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conference calls (col. 2, lines 16-20; col. 6, lines 10-19; col. 14, lines 3-11), circuit switched TDM capable device (using PSTN/POTS, Fig. 2, and respective disclosure; PSTN uses TDM T1 lines and SONET), VoIP (Fig. 4; using H.323, SIP, Fig. 2; col. 1, lines 5-15; telephony over packet, col. 1, lines 31-35; call using packets, col. 2, lines 16-20; voice, col. 7, lines 25-35), database and call logs (e.g., DMI Figs. 1-2, col. 3, lines 48-67; col. 5, lines 25-44; col. 4, lines 30-42; col. 2, lines 16-20; Fig. 4), and dynamic access (e.g., col. 7, lines 46-55), as specified in claims 1-24.

Since Mottishaw discloses storing the trace information (cols. 3-4; or see above), using LAN probes (col. 4, lines 1-10), a Network Management system (Fig. 1), a display (computer monitor, Fig. 2), providing interfaces for application programs to analyze the service detail records (col. 3, lines 62-67), and physical representations of a network using the notorious well known HPOV (col. 11, lines 39-51), Mottishaw discloses that the trace data that is collected can be displayed and that at least a portion of the trace information that was received can be or is displayed, as specified in claims 1, 9, and 17. One of ordinary skill in the art of network management, and especially HPOV, would understand that NM is a highly graphic technology for many reasons, one being that people who manage and monitor

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network need to be able to quickly identify problems in the networks that they are monitoring. For example, it is common for a network device to be displayed as green when operating normally, yellow when a problem arises, and red when it fails (the way HPOV works).

### ***Response to Arguments***

In re pgs. 7-8, the applicant argues the present invention displays call trace information that was received (pg. 7), and dynamically send a call trace request (pg. 8).

In response, there is no mention of these limitations in the claims and the specification is not the measure of the invention. Therefore, limitations contained therein can not be read into the claims for the purpose of avoiding the prior art; see In re Sprock, 55 CCPA 743, 386 F.2d 924, 155 USPQ 687(1968).

### ***Claim Rejections - 35 USC § 103***

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mottishaw (US 6,721,284), as set forth above.

However, Mottishaw fails to particularly call for the newly added limitation of displaying at least a portion of the trace information that was received, as specified in claims 1, 9, and 17.

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Since Mottishaw discloses storing the trace information (cols. 3-4; or see above), using LAN probes (col. 4, lines 1-10), a Network Management system (Fig. 1), a display (computer monitor, Fig. 2), providing interfaces for application programs to analyze the service detail records (col. 3, lines 62-67), and physical representations of a network using the notorious well known HPOV (col. 11, lines 39-51), it is obvious that the trace data that is collected can be displayed and that it is obvious for Mottishaw to display at least a portion of the trace information that was received, as specified in claims 1, 9, and 17. One of ordinary skill in the art of network management would understand that NM is a highly graphic technology for many reasons, one being that people who manage and monitor network need to be able to quickly identify problems in the networks that they are monitoring. For example, it is common for a network device to be displayed as green when operating normally, yellow when a problem arises, and red when it fails. Displaying call trace information can allow the people viewing the terminals to see e.g., what hops are taken along a path to a final destination. This can be very useful when e.g., security or least cost routing is important.

***Claim Rejections - 35 USC § 103***



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3. Claims 1-24 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mottishaw, in view of Sistanizadeh (US 6,681,232).

Although Mottishaw discloses a DMI (Fig. 1-2; or col. 5, lines 33-44) and the proxy server was never further defined, Mottishaw still fails to particularly call for proxy server, as specified in claims 25-26.

A server reads on a computer or device on a network that manages network resources; e.g., a *file server* is a computer and storage device dedicated to storing files. Any user on the network can store files on the server. A *print server* is a computer that manages one or more printers, and a *network server* is a computer that manages network traffic. A database server is a computer system that processes database queries.

A proxy server can be a server that sits between a client application, such as a Web browser, and a real server. It intercepts all requests to the real server to see if it can fulfill the requests itself. If not, it forwards the request to the real server.

Sistanizadeh teaches a plurality of servers with several of them reading on being a proxy server (see e.g., Fig. 12; DNS, 131, Fig. 3 NOC, Fig. 3/11; Fig. Web Server, 111, Figs. 1, 6; HTTP server, 111, Fig. 7; NMS, Fig. 10).

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Since Mottishaw discloses the DMI and a plurality of devices that read on servers, such as gateways, and call record databases, it would have been obvious to combine the server(s) in Sistanizadeh for the purpose of redundancy and/or having a backup server or to help with congestion.

***Response to Arguments***

4. Applicant's arguments with respect to claims 25-26 have been considered but are moot in view of the new ground(s) of rejection.

In re pg. 9, the applicant argues the deficiencies were described above.

In response, the newly added limitation of displaying at least a portion of the trace information that was received, as specified in claims 1, 9, and 17, is not specified in claims 25-26; there is no mention of these limitations in the claims and the specification is not the measure of the invention. Therefore, limitations contained therein can not be read into the claims for the purpose of avoiding the prior art; see In re Sprock, 55 CCPA 743, 386 F.2d 924, 155 USPQ 687 (1968).

In re pg. 9, the applicant argues does not dynamically request call trace information.

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In response, there is no mention of these limitations in the claims and the specification is not the measure of the invention. Therefore, limitations contained therein can not be read into the claims for the purpose of avoiding the prior art; see In re Sprock, 55 CCPA 743, 386 F.2d 924, 155 USPQ 687(1968).

In re pg. 9, the applicant argues the motivation to combine.

In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is not what individual references themselves suggest but rather what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re Keller, 648 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Sernaker, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983); In re McLaughlin, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA 1969).

In re pg. 9, the applicant argues the references are directed towards different fields on endeavor.

In response, both references are directed towards network management and both disclose using HPOV (Mottishaw: col. 11, lines 39-51; Sistanizadeh: col. 29, line 48-col. 30, line 11).

### **Conclusion**

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R Vincent whose telephone number is 571 272 3080. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571 272 3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David R Vincent  
Primary Examiner  
Art Unit 2661

November 24, 2004